**Before the**
**Federal Communications Commission**
**Washington, D.C. 20554**

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| In the Matter of | ) | |
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| Implementation of Section 6002(b) of | ) | |
| the Omnibus Budget Reconciliation | ) | |
| Act of 1993 | ) | WT Docket No. 04-111 |
| | ) | |
| Annual Report and Analysis of | ) | |
| Competitive Market Conditions With | ) | |
| Respect to Commercial Mobile Services | ) | |

# COMMENTS OF THE CELLULAR TELECOMMUNICATIONS & INTERNET ASSOCIATION


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## SUMMARY

In these comments, the Cellular Telecommunications & Internet Association ("CTIA") responds to the Commission's request for information regarding the state of competition in the wireless industry for incorporation into the Ninth Annual CMRS Competition Report. The data available from a number of public sources demonstrates that the wireless industry remains highly competitive, offering innovation, choice and competitive prices to consumers.

CTIA's data indicates that 98 percent of the U.S. population now lives in markets served by three or more operators, 93 percent in markets served by four or more operators, 83 percent in markets served by five or more operators, and 66 percent in markets served by six or more operators.

The competitive wireless industry continues to deliver a consumer-focused performance. And, as the Commission noted in the *Competition NOI*, "The structural and behavioral characteristics of a competitive market . . . are desirable not as ends in themselves, but rather as a means of bringing tangible benefits to consumers such as lower prices, higher quality, and greater choice of services. Such consumer outcomes are the ultimate test of effective competition."

Multiple providers are offering wireless services to effectively all Americans. As a result of the Commission's spectrum policies, consumers are benefiting from the unprecedented choice of wireless service providers. This facilities-based competition has been a spur to the on-going investment and build-out of wireless systems, the introduction of new service options, multiple pricing plans, declining prices, and the concomitant increase in minutes used by consumers. By any measure, the wireless

industry – and the wireless marketplace – is delivering effective competition, and competitive benefits, to consumers.

## TABLE OF CONTENTS

**Before the**
**Federal Communications Commission**
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| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | |
| Implementation of Section 6002(b) of | ) | |
| the Omnibus Budget Reconciliation | ) | |
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| | ) | |
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| Competitive Market Conditions With | ) | |
| Respect to Commercial Mobile Services | ) | |

# COMMENTS OF THE CELLULAR TELECOMMUNICATIONS & INTERNET ASSOCIATION

The Cellular Telecommunications & Internet Association ("CTIA")[1] hereby submits the following comments in response to the Federal Communications Commission's ("Commission" or "FCC") March 24, 2004 *Notice of Inquiry* requesting information regarding the status of competition in the CMRS industry.[2]

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1 CTIA is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the organization covers all Commercial Mobile Radio Service ("CMRS") providers and manufacturers, including cellular, broadband PCS, ESMR, as well as providers and manufacturers of wireless data services and products.

2 *See Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services,* WT Docket No. 04-111, *Notice of Inquiry*, released March 24, 2004 (hereinafter "NOI"). Section 332(c)(1)(C) of the Telecommunications Act requires the FCC to conduct an annual review of competitive market conditions in the CMRS marketplace, and produce an annual report analyzing those conditions, that must include "(1) an identification of the number of competitors, (2) an analysis of whether or not there is effective competition, (3) an analysis of whether any of such competitors have a dominant share of the market for such services, and (4) a statement of whether additional providers or classes of providers in those services would be likely to enhance competition."

In last year's report to Congress, the Commission concluded that the CMRS industry had become "effectively competitive."[3] CTIA and its members strongly believe that an inquiry into the state of competition in the CMRS industry should build upon this conclusion and should not, as the NOI asks, have to once again prove the conclusion. As Commissioner Abernathy notes, such an exercise is a waste of Commission and industry resources.[4]

Against this backdrop, CTIA focuses its comments on the developments during the last twelve months that demonstrate the CMRS industry is even more competitive than ever, and we highlight the publicly available information that provides the Commission with the empirical data it requires to conduct its analysis and properly conclude that the wireless industry – and the wireless marketplace – is delivering effective competition, and competitive benefits, to consumers.

CTIA applauds the Commission's focus on "the benefits to consumers of effective competition such as lower prices, higher quality, greater variety, and more rapid innovation"[5] because the industry has been fabulously successful at delivering such benefits with minimal regulatory intervention, a prime example of competitive markets at work. Assessing the "competitive conditions in the CMRS industry from the consumer's

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3 *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services,* Eighth Report, 18 FCC Rcd 14783, para. 5 (2003).

4 Separate Statement of Commission Kathleen Q. Abernathy, released March 24, 2004 ("I have no doubt that the information we gather will be interesting but I am not sure that is a sufficient reason to burden staff resources that could be better spent on other projects, or to burden service providers that could better spend their resources competing in the marketplace.").

5 *Id*.

point of view, including both personal and business users"[6] serves only to confirm that CMRS is a robustly competitive market.

## I. Threshold Issues

As a threshold issue, and as CTIA stated in response to last year's *NOI*, CTIA believes that it is not appropriate for the Commission to require carriers to devote substantial resources to the compilation and submission of data that is already available on industry websites, press releases, and in readily available third-party sources. As CTIA stressed:

> the collection of data – the search for understanding of the competitive marketplace – should not actually harm competitors in the marketplace, for the result of such harm is not just damage to the competitors, but is harm to the consumers of the services provided by such competitors. This is not an argument that the role of regulators is to pick-and-choose and protect specific competitors. Rather, it is the regulatory equivalent of the Hippocratic oath: first, do no harm.
>
> As Robert Bork observed in *The Antitrust Paradox*, "When we talk of the desirability of competition we ordinarily have in mind such things as low prices, innovation, choice among differing products – all things we think of as being good for consumers."[7]
>
> In sum, the FCC's interest in the collection of data describing the competitive state of the wireless industry should not, therefore, harm the actual ability of participants in that industry to deliver these desirable results to consumers: innovation, choice, and low prices. [8]

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6 NOI at para.1.

7 *The Antitrust Paradox* (New York, NY: Basic Books, 1978) at 61.

8 Comments of the Cellular Telecommunications & Internet Association, In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, WT Docket No. 02-379, filed January 27, 2003, at 7-8 (CTIA 2003 Competition Comments).

By any measure, the wireless industry is competitive, a fact which the Commission has repeatedly recognized. Given the variety of publicly available information that demonstrates wireless consumers are receiving the full benefits of a competitive marketplace for wireless services, the Commission should not seek to review or require the submission of data which is not necessary to fulfilling its statutory mandate to report to Congress, and the disclosure of which may be harmful to the ability of companies to compete actively in the marketplace to deliver those benefits to consumers.

One new area the Commission should monitor is the effects of state and local regulation of CMRS on competition and consumers. A variety of state and local policies increase wireless service costs by imposing taxes, fees, and regulatory burdens. The prices that consumers pay are increased, and competition is weakened and distorted, by regulatory policies that raise wireless costs or create artificial competitive advantages for competing transmission technologies. In addition to the costs and distortions caused by specific state and local policies, a patchwork of varying regulations across the country can be costly because it raises compliance costs and because there may be distortions between national and more regionally or locally focused providers.[9] For example, the California Public Utilities Commission is currently considering whether to adopt California-specific privacy rules governing the use of certain customer data that differ significantly from the Commission's privacy rules. Creating distinct rules for California will increase the costs of service for carriers that operate on a multi-state or national basis.

[9] Such a patchwork, if unchecked, could jeopardize the continued viability of the national "One-Rate" plans by creating state-specific rules that increase carriers' costs of service.

## II. Mobile Telecommunications Market Structure

The Commission's NOI indicates that the Commission wants to focus its analysis "on the current level of concentration and the ease or difficulty with which new operators can enter the mobile telecommunications market."[10] The Commission also invites commenters to address whether there are metrics other than the number of operators per county, occurrences of consolidation and exit of operators from the market, and planned spectrum auctions that should be used to evaluate the market structure of the mobile telecommunications market, and whether such data may be available on a national and/or sub-national level.[11]

> While concentration may be a matter of general interest to the Commission, standing alone, it is not an indicator of either the presence or intensity of competition.

Rather, the Commission should look at the availability of spectrum, and the effectiveness of its partitioning, disaggregation, and secondary markets policies, especially in rural markets. Data about consolidation and market entry and exit is already within the Commission's possession. For example, the Commission conducts the spectrum auctions and issues the spectrum licenses that facilitate additional entry, it rules on the license applications needed for entry, and grants the license transfers to effectuate both exit and consolidation. The Commission's *Eighth Competition Report* referred to the

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10 NOI at para.8.

11 *Id*.

Commission's comparative analysis of the number of operators per county, as well as by other geographic areas, based on data within the Commission's possession.[12]

## A. Geographic Market Definition and Service Availability

### 1. Defining Geographic Markets

Historically, the Commission shaped the structure of the wireless industry by issuing licenses for a "patchwork of numerous and relatively small geographic areas."[13] Wireless carriers then enlarged their service areas by clustering adjacent properties and offering wide area, regional and national calling services.[14] With a total potential customer base defined by the population of the United States, and an actual subscriber base of over 160 million, wireless licensees have strived to offer many options to appeal to the presumably varying interests of these millions of potential and actual customers. The success of the national "One Rate" plans has given the benefits of competition to all customers served by national, regional and "small" local carriers and their competitors, whether in urban or rural markets. Carriers of all sizes offer local, regional and national calling options.

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12 *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Eighth Report,* 18 FCC Rcd. 14783 (2003) (*Eighth Competition Report*) at para 11.

13 *Id*. at para.9.

14 Following the consolidated operation of MSA and RSA markets by cellular operators, the Commission adopted larger PCS markets. *See e.g., Amendment of the Commission's Rules to Establish New Personal Communications Services, Second Report and Order*, 8 FCC Rcd. 7700, 7732 (1993). Subsequently, carriers assembled even broader footprints through aggregation of licenses, and / or the offering of regional and national calling plans.

For example, the websites for smaller "non-national" companies such as First Cellular of Southern Illinois, MTA Wireless (based in Alaska), Midwest Wireless (of Minnesota, Iowa and Wisconsin), Bluegrass Cellular (based in Central Kentucky), Cellular One of San Luis Obispo (based in California), Corr Wireless (based in Alabama), MobileTel (based in Louisiana), Thumb Cellular (based in Michigan), and others include national as well as regional and local service plans.[15] At the same time, the websites for larger regional and national carriers include local, as well as national and regional calling plans.[16] Third-party websites such as www.myrateplan.com also permit consumers to view the range of different service plans available in many markets, and conduct comparisons of the price, number of included minutes, and other options.

**2. Granular Measurement of Service Availability**

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15 *See e.g.,* the availability of national calling plans for operators such as Bluegrass Cellular at http://www.bluecell.com/cellular.html; Corr Wireless at http://www.corrwireless.com/gsmnat.html; First Cellular of Southern Illinois at http://www.firstcellular.com/pages/rates.php; Cellular One of San Luis Obispo at http://cellularone-slo.com/rateplans/indplans.asp; MTA Wireless at http://www.mtawireless.com/wireless/wirelessplans.html (their nationwide calling plan including Canada); Midwest Wireless at http://www.midwestwireless.com/Home/PlansAndTools/NTPLAN.htm; MobileTel at http://www.mobiletelcellular.com/rate_us.php, and Thumb Cellular at http://www.thumbcellular.com/nationwide.htm. Examples of regional calling plans for small operators include many already noted (*e.g.,* Bluegrass Cellular's Kentucky, Tennessee and Indiana regional plan appearing at http://www.bluecell.com/regional_cellular.html, as well as the California and Western States plans offered by Cellular One of San Luis Obispo); and plans offered by such companies as Pioneer / Enid Cellular at http://www.pioneerenidcellular.com/wire_callplans.php; the twelve-state plan of Cal-North Cellular at http://calnorth.net/roaming.html; and the statewide plans of Thumb Cellular at http://www.thumbcellular.com/statewide.htm .

16 *See e.g.,* the websites of AT&T Wireless, ALLTEL, Cingular Wireless, Nextel, Sprint PCS, Western Wireless, Verizon Wireless, and T-Mobile USA for details of their various calling plans.

In seeking information on service availability by billing address or zip code, the Commission focuses on a static measure that is not reflective of the essentially mobile nature of the wireless industry's services, nor indicative of the competitive performance of the wireless industry. Further, there do not appear to be any discernable benefits to this kind of granular measurement that would counterbalance the significant burdens of doing such an analysis in a market where there is no evidence of market failure. As these Comments note, *infra*, the industry has now also adopted a Consumer Code that requires carriers to make available at point of sale and on their websites maps depicting approximate voice service coverage applicable to each of their rate plans currently being offered to consumers.

Reviewing subscriber data on a more granular level (whether by county or census block or zip code) is also at odds with the trend in the development of wide area calling, and the offerings of regional and nationwide calling plans which have grown up since the initial Digital One Rate offering advanced by AT&T Wireless. The FCC itself publishes reports that aggregate wireless subscriber information into state-level data and both EA and REA groupings.[17]

### 3. Rural Markets

The wireless industry has consistently provided highly competitive services throughout all regions of the U.S., including rural America. There is no correlation between the number of providers in a rural market and the prices consumers pay, thanks

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[17] *See Local Competition Report*, released Dec. 2003, at Table 13 (Mobile Subscribership by state); *see also Eighth Competition Report,* 18 FCC Rcd. 14783 at Appendix D, Table 3.

to the success of the national One Rate-type plans. The *Eighth Competition Report* duly noted that:

> [W]hile it appears that, on average, a smaller number of operators are serving rural areas than urban areas, this difference does not necessarily indicate that effective CMRS competition does not exist in rural areas. On the contrary . . . statements presented by public forum participants and NOI commenters provide evidence that, despite the differing structure of rural markets, effective CRMS competition does exist in rural areas.[18]

Moreover, the report indicated that data "showed that the average price of mobile telephone service in rural areas appears to be very similar to the average price in urban areas,"[19] suggesting no difference in results between urban and rural areas. The fact that entry does not occur more rapidly in rural areas indicates that incumbent carriers are setting low prices that do not attract competitive entry. However, a patchwork of state and local regulations could Balkanize carriers' costs to the point that national "One Rate" plans are no longer sustainable. Thus state regulations promulgated under "terms and conditions" could threaten national One Rate-type plans and the benefits these plans have brought consumers.

Another threat in rural markets is the disproportional impact of government mandates that must be recovered over a smaller customer base and typically a larger service territory. These mandates, which include implementation of Local Number Portability ("LNP"), CALEA, and E-911, have seriously impacted and delayed build-out to unserved areas of carriers' service territory and the introduction of new services and technologies.

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18 *Eighth Competition Report,* 18 FCC Rcd. 14783 at para.13.

19 *Id*. *citing* Econ One analysis.

For example, earlier this year, First Cellular of Southern Illinois was forced to limit its investment in customer enhancing services and expanded coverage because of the cost of mandates. First Cellular has had to divert more than $2,000,000 from its capital budget to deploy an acceptable solution to the E-911 phase II mandate, following on the heels of the approximately $1,000,000 it spent to support number portability. As a result of these mandates, rather than construct ten to twelve new cell sites desired for 2004, only three made it into First Cellular's capital plan. In addition, First Cellular's GSM upgrade to EDGE had to be put on hold, limiting their high-speed data solution to only what can be done on GPRS.

Similarly, Southern LINC would have been able to add up to 30 coverage sites had it not been required to spend its finite capital budget deploying E-911 and number portability. And Carolina West Wireless has reported to CTIA that its expenses to deploy E-911, CALEA, and number portability LNP represent approximately two or three new cell sites (depending upon the technology used) that have not been constructed but are delayed into later years.

Illinois Valley Cellular is licensed to provide service in a single RSA, Illinois 2, serving eight counties in North Central Illinois. This small carrier supports CDMA, TDMA and analog service on all 36 of its cell sites. Four new cell sites were included in the company's 2004 budget. However, due to the high costs in dollars and manpower associated with the May 24, 2004 number portability deadline and E-911 Phase II implementation, Illinois Valley Cellular has been forced to delay its planned build-out of new facilities. Illinois Valley Cellular also had contracted with Nortel to turn on its 1XRTT data network. This upgrade has been postponed until after LNP testing is

complete.[20] Although not believing it necessary for the purposes of the Commission's analysis in this proceeding, as a general principle, CTIA believes that the Commission should adopt a flexible definition of "rural areas" for example, one that includes areas that either (1) fall within a Rural Service Area (RSA), or (2) are in counties with a population density of 100 persons or fewer per square mile.[21] However, it is important that the Commission keep in mind that the physics which govern wireless services are not bounded by geopolitical boundaries, and that the market forces which drive and shape the wireless industry and carrier offerings also are not bounded by these artificial constraints.

All of the license areas which have been adopted by the Commission – and those which have been suggested as further measures in the NOI itself – have had as part of their underlying rationale the association of specific areas (whether counties or other areas with theoretical communities of interest, including commuting patterns (in the Rand McNally areas) and what the Commission has characterized as "'Economic Nodes' and the surrounding counties that are economically related to it."[22] The ever-broader calling areas – rising to the regional and national levels – now available from small, mid-sized,

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[20] Other rural carriers have reported to CTIA that they have had to abandon plans to provide high speed data service and delay build out in more rural areas for a couple of years in order to recover the costs of these mandates.

[21] Comments of the Cellular Telecommunications & Internet Association, *Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies To Provide Spectrum-Based Services, 2000 Biennial Regulatory Review Spectrum Aggregation Limits for Commercial Mobile Radio Services, Increasing Flexibility To Promote Access to and the Efficient and Intensive Use of Spectrum and the Widespread Deployment of Wireless Services, and To Facilitate Capital Formation*, WT Docket Nos. 02-381, 01-14, and 03-202, filed December 29, 2003, at 4.

[22] NOI at n.29.

and large carriers suggest that these carriers recognize the interest of many consumers in plans reflecting larger geographic areas.[23]

### 4. Service Deployment and Investment in New Services

It is important to keep in mind that the wireless industry is just 20 years old, and that the competitive *initiation* of analog service in the 734 cellular markets (the oldest component of the wireless industry) was only effectively reached at the end of 1992. Cellular companies then served just 11 million customers nationwide, and were still – and continued to be – actively deploying facilities to expand coverage within their Cellular Geographic Service Areas. The FCC's approval of the application of digital technology to Specialized Mobile Radio Spectrum (and as overlays to the cellular systems' analog service), and the subsequent licensing of Personal Communications Services (PCS), have facilitated an on-going effort to build-out and upgrade systems to provide better coverage, carry greater volumes of traffic, deliver additional features and service options, and thereby appeal to more consumers.

The extent of network build-out and upgrades is suggested by the amounts of incremental capital investment and infrastructure carriers have reported in response to CTIA's semi-annual survey – an additional $120 billion in capital investment has been

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[23] *See e.g.,* the offering of national and regional calling plans from small companies such as Brazos Cellular, SureWest Wireless, and Thumb Cellular, as well as such regional and nationwide companies as ALLTEL, AT&T Wireless, Cingular, Verizon Wireless and Western Wireless. *See e.g.*, http://www.brazoscellular.com/rates_digital.php, http://www.surewestwireless.com/products/plans/unlimited_usa.php, http://www.thumbcellular.com/plans.htm, http://www.alltel.com/estore/wireless/plans/, http://www.attwireless.com/personal/plans/plans.jhtml?_requestid=57725, http://www.verizonwireless.com/b2c/index.jsp, and http://www.cellularonewest.com/rateplans.asp?National.

reported since the end of 1995, and another 140,000 cell sites have been reported to have gone into commercial operation over the same timeframe.[24] Moreover, by the end of 2003, 92 percent of all reported subscribers were digital subscribers, and approximately the same percentage of reported network channels were also digital in nature.[25]

CTIA's wireless industry survey includes data on cumulative capital investment, as well as a request for explicit reporting of incremental capital investment. The total incremental capital investment for the last half of 2003 was up 11.4 percent from the incremental capital investment reported for the first half of 2003.[26] While CTIA's survey focuses on aggregate nationwide investment for the industry, Merrill Lynch has reported on the six national carriers' capital expenditures in their "Next Generation VIII" report through year-end, and their quarterly matrix report on U.S. carriers expands that universe to include 19 national, affiliate, and regional / rural operators.[27] (UBS also reports on the capital expenditures for 23 national, affiliate and regional operators.[28]) While analyst reports have noted that reductions in capital expenditures have occurred as carriers

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24 *See* CTIA's Semi-annual Wireless Industry Survey results at http://www.wow-com.com/industry/stats/surveys/.

25 CTIA's survey requests both total channels, and analog versus digital channel figures. The survey does not distinguish between varieties or generations of digital or analog technologies, *e.g.,* AMPS v. N-AMPS, TDMA, CDMA, iDEN, GPRS, GSM, etc.

26 CTIA Semi-annual Wireless Survey results, to be published in CTIA's forthcoming *Wireless Industry Indices* report.

27 *See* David Janazzo, *et al.*, "The US Wireless Matrix 4Q03," Merrill Lynch, March 15, 2004, at Table 32 (indicating capex has increased sequentially for all three categories of operators).

28 *See* Colette Fleming, *et al.*, "Wireless 411: Version 12.0," UBS, April 16, 2004, at 90-98.

completed construction of their overlay networks, they also note carriers indicate they intend to focus their on-going capital expenditures on improving coverage, quality, and capacity.[29]

Moreover, by deploying digital network upgrades, carriers are extending the availability of the wireless data offerings noted in the Commission's *Eighth Competition Report*. For example, earlier this year, Verizon Wireless announced its intent to broadly deploy its CDMA2000 1XEV-DO technology beyond its two initial markets – San Diego and Washington, D.C. Verizon was quoted as planning to spend $1 billion over the next two years to launch the EV-DO network, after having launched its 1X data network nearly two years ago.[30] AT&T Wireless and Cingular Wireless both describe their wireless data networks on their websites.[31] Analysts have also noted that companies such as ALLTEL, T-Mobile, and U.S. Cellular have indicated that they are rolling out CDMA 1X data offerings, or deploying EDGE or CDMA 1X in their markets.[32] Details of NEXTEL's various data offerings are also publicly available, as are details of the

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29 *See* Colette Fleming, *et al.*, "Wireless 411: Version 10.0," UBS, October 3, 2003, at 87. *See also* "Wireless 411: Version 12.0," at 90-91.

30 *See* Brad Smith, "Verizon Going Nationwide with EV-DO," News@2Direct, Jan. 8, 2004.

31 *See* http://www.attwireless.com/speed/ (describing the AT&T Wireless EDGE and GPRS Networks), *see also* the description of the availability of the Cingular GSM/GPRS based-services at http://www.cingular.com/beyond_voice/wi_availability (maps and information).

32 *See* "Wireless 411: Version 10.0," at 87-88; and "Wireless 411: Version 12.0," at 90-91; *see also* Colette M. Fleming, *et al.*, "Wireless Services – CTIA 2004," UBS, March 26, 2004, at 3, 6.

network upgrades and advanced features offered by smaller carriers.[33] Goldman Sachs recently issued a report reviewing the prospects for wireless data, examining company-specific strategies and both technology choices and deployment from AT&T Wireless' and Cingular Wireless' EDGE deployment, to Sprint PCS' 1XRTT and T-Mobile's Wi-Fi and SMS offerings.[34] This report also reviews evolving wireless data pricing strategies.[35]

The NOI states that the "Commission observed in the *Eighth Report* that the continued rollout of differentiated service offerings indicated a competitive marketplace."[36] Noting the prior introduction of various pricing levels and structures, and various available handsets and handset pricing, and wireless plans designed to compete directly with wireline local telephone service, the Commission asked "[s]ince the *Eighth Report*, have providers introduced new pricing plans and/or services to differentiate themselves? What other sorts of plans are being used to distinguish service providers and/or serve particular market segments?"[37]

As a threshold issue, differentiation alone does not demonstrate competition – indeed, to the extent that a specific product or offering appeals to a great number of consumers, other carriers may respond to that success by offering similar plans – and thus competition will drive similar as well as differentiated offerings. The growth of One

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33 *See e.g.,* Yuki Noguchi, " Begins Selling Wireless Broadband; Successful Trial Leads to N.C. Rollout," *The Washington Post*, April 15, 2004, at E06.

34 Frank Governali, *et al*., "Wireless data prospects brightening," Goldman Sachs, April 16, 2003.

35 *Id*. at 31, *et seq*.

36 NOI at para. 65, citing the *Eighth Competition Report*, 18 FCC Rcd at 14828 para. 94.

37 *Id*. at para. 65.

Rate-type plans would exemplify this competitive process. In fact, companies continue to experiment with a variety of offerings – including variations on prepaid services (such as the Nextel-based "Boost Mobile" offering, which is aimed at a younger market),[38] and a variety of ancillary services, from SMS to game and music downloads, and new products such as camera phones and Smartphones capable of providing access to office systems such as Microsoft Outlook.[39] The popularity of many of these applications is such that the messaging and entertainment capabilities are being offered by carriers of all sizes, from the smallest local carriers to the nationwide licensees.

A result of carrier investment in new technologies, and the establishment of network interoperability for emerging data services and applications, is that the volume of SMS messages handled by wireless operators in the U.S. have soared – growing from just over 14 million a month in December 2000 to over 2 billion a month in December 2003.[40] SMS interoperability was established in 2002, and carriers are now at work on establishing photo messaging interoperability.[41]

**5. Access to Information**

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38 *See http://www.boostmobile.com/about.html ("*Boost Mobile, headquartered in Irvine, California, is a lifestyle-based telecommunications division of Nextel Communications that focuses solely on developing and distributing communications products for the youth market. The company offers pay-as-you-go wireless phone and entertainment services available in California and Nevada, which are designed to meet the lifestyle needs of today's active youth.")

39 *See e.g.,* "Wireless data prospects brightening," at 31 et seq., re SMS, ringtones, photo messaging, and other data options.

40 CTIA Semi-annual Wireless Survey results, to be published in CTIA's forthcoming *Wireless Industry Indices* report.

41 *See e.g.,* "Wireless data prospects brightening," at 7-8.

Wireless subscribers have a plethora of resources to which they can turn to learn about their choices – of coverage areas, price plans, new phones and new service offerings. The wireless industry has established a Consumer Code "to provide consumers with information to help them make informed choices when selecting wireless service, to help ensure that consumers understand their wireless service and rate plans, and to continue to provide wireless service that meets consumers' needs."[42] The code further states "The carriers that are signatories to this Code have voluntarily adopted the principles, disclosures, and practices here for wireless service provided to individual consumers," and specifies that:

> THE WIRELESS CARRIERS THAT ARE SIGNATORIES TO THIS CODE WILL:
>
> ONE: DISCLOSE RATES AND TERMS OF SERVICE TO CONSUMERS
> For each rate plan offered to new consumers, wireless carriers will make available to consumers in collateral or other disclosures at point of sale and on their web sites, at least the following information, as applicable: (a) the calling area for the plan; (b) the monthly access fee or base charge; (c) the number of airtime minutes included in the plan; (d) any nights and weekend minutes included in the plan or other differing charges for different time periods and the time periods when nights and weekend minutes or other charges apply; (e) the charges for excess or additional minutes; (f) per-minute long distance charges or whether long distance is included in other rates; (g) per-minute roaming or off-network charges; (h) whether any additional taxes, fees or surcharges apply; (i) the amount or range of any such fees or surcharges that are collected and retained by the carrier; (j) whether a fixed-term contract is required and its duration; (k) any activation or initiation fee; and (l) any early termination fee that applies and the trial period during which no early termination fee will apply.
>
> TWO: MAKE AVAILABLE MAPS SHOWING WHERE SERVICE IS GENERALLY AVAILABLE
> Wireless carriers will make available at point of sale and on their web sites maps depicting approximate voice service coverage applicable to each of their rate plans currently offered to consumers. To enable consumers to make comparisons among carriers, these maps will be generated using generally accepted methodologies and standards to depict the carrier's outdoor coverage. All such maps will contain an appropriate legend concerning limitations and/or variations in wireless coverage and map usage, including any geographic limitations

[42] CTIA Consumer Code for Wireless Service, http://www.wow-com.com/pdf/The_Code.pdf.

on the availability of any services included in the rate plan. Wireless carriers will periodically update such maps as necessary to keep them reasonably current. If necessary to show the extent of service coverage available to customers from carriers' roaming partners, carriers will request and incorporate coverage maps from roaming partners that are generated using similar industry-accepted criteria, or if such information is not available, incorporate publicly available information regarding roaming partners' coverage areas.

THREE: PROVIDE CONTRACT TERMS TO CUSTOMERS AND CONFIRM CHANGES IN SERVICE

When a customer initiates service with a wireless carrier or agrees to a change in service whereby the customer is bound to a contract extension, the carrier will provide or confirm the material terms and conditions of service with the subscriber.

FOUR: ALLOW A TRIAL PERIOD FOR NEW SERVICE

When a customer initiates service with a wireless carrier, the customer will be informed of and given a period of not less than 14 days to try out the service. The carrier will not impose an early termination fee if the customer cancels service within this period, provided that the customer complies with applicable return and/or exchange policies. Other charges, including airtime usage, may still apply.

FIVE: PROVIDE SPECIFIC DISCLOSURES IN ADVERTISING

In advertising of prices for wireless service or devices, wireless carriers will disclose material charges and conditions related to the advertised prices, including if applicable and to the extent the advertising medium reasonably allows: (a) activation or initiation fees; (b) monthly access fees or base charges; (c) any required contract term; (d) early termination fees; (e) the terms and conditions related to receiving a product or service for "free;" (f) the times of any peak and off-peak calling periods; (g) whether different or additional charges apply for calls outside of the carrier's network or outside of designated calling areas; (h) for any rate plan advertised as "nationwide," (or using similar terms), the carrier will have available substantiation for this claim; (i) whether prices or benefits apply only for a limited time or promotional period and, if so, any different fees or charges to be paid for the remainder of the contract term; (j) whether any additional taxes, fees or surcharges apply; and (k) the amount or range of any such fees or surcharges collected and retained by the carrier.

SIX: SEPARATELY IDENTIFY CARRIER CHARGES FROM TAXES ON BILLING STATEMENTS

On customers' bills, carriers will distinguish (a) monthly charges for service and features, and other charges collected and retained by the carrier, from (b) taxes, fees and other charges collected by the carrier and remitted to federal state or local governments. Carriers will not label cost recovery fees or charges as taxes.

SEVEN: PROVIDE CUSTOMERS THE RIGHT TO TERMINATE SERVICE FOR CHANGES TO CONTRACT TERMS

Carriers will not modify the material terms of their subscribers' contracts in a manner that is materially adverse to subscribers without providing a reasonable advance notice of a proposed modification and allowing subscribers a time period of not less than 14 days to cancel their contracts with no early termination fee.

EIGHT: PROVIDE READY ACCESS TO CUSTOMER SERVICE

Customers will be provided a toll-free telephone number to access a carrier's customer service during normal business hours. Customer service contact information will be provided to customers online and on billing statements. Each wireless carrier will provide information about how customers can contact the carrier in writing, by toll-free telephone number, via the Internet or otherwise with any inquiries or complaints, and this information will be included, at a minimum, on all billing statements, in written responses to customer inquiries and on carriers' web sites. Each carrier will also make such contact information available, upon request, to any customer calling the carrier's customer service departments.

NINE: PROMPTLY RESPOND TO CONSUMER INQUIRIES AND COMPLAINTS RECEIVED FROM GOVERNMENT AGENCIES
Wireless carriers will respond in writing to state or federal administrative agencies within 30 days of receiving written consumer complaints from any such agency.

TEN: ABIDE BY POLICIES FOR PROTECTION OF CUSTOMER PRIVACY
Each wireless carrier will abide by a policy regarding the privacy of customer information in accordance with applicable federal and state laws, and will make available to the public its privacy policy concerning information collected online.

The wireless industry takes seriously the representations made in the Consumer Code, and requires participating carriers to annually re-certify their compliance with its terms.

With respect to other sources for data which is responsive to consumer interest in information describing wireless services, as CTIA noted in its response to the NOI for the *Eighth Competition Report*:

> Quality of Service data is available from a number of sources, including consumer-oriented publications such as *Consumer Reports*, and websites providing guidance to would-be consumers of wireless service such as www.wirelessadvisor.com, J.D. Power's rating of wireless carriers at http://www.jdpower.com/ and the Utility Consumers Action Network (UCAN) site at http://www.ucan.org/cellphonedeadzones/index.htm.[43] Other sources for quality of service data include Scoreboard, Agilent Technologies, Telephia, and LCC International.
>
> Data on current prices are available from a number of sources, including carriers' websites, as well as from comparison websites like www.myrateplan.com, the related site

[43] *See also* "Three Steps to Better Cellular," Consumer Reports, February 2003, at 17, 23.

> http://www.comparewirelessrates.com, www.point.com, www.getconnected.com, www.hellodirect.com, and others. Such comparison sites as www.myrateplan.com allow consumers to input their anticipated or actual usage patterns (including their home area zip code, their anticipated traffic volumes and calling patterns) to determine the most cost-effective or suitable option among those offered by carriers in that area.[44]

Additional data can be found at comparison sites and bulletin boards that are quickly accessible through a simple Internet search. Plugging "compare wireless plans" into Google will generate numerous hits, ranging from the sites identified above, to www.letstalk.com, and www.pricingcentral.com.

**6. Resale Providers**

The FCC's *Local Telephone Competition* report has tracked the relative share of wireless subscribers served by resellers since December 1999. Functionally, while the resale requirement initially provided the opportunity for a cellular licensee to resell the services of its rival during the period of its construction of its own facilities (and hence overcome any putative head-start advantage) the resale requirement also permitted non-facilities-based companies to essentially compete with the facilities-based carriers at the retail level by arbitraging the difference between the wholesale and retail rates. While this practice flourished at one time (when the number of licenses for facilities-based operators were limited, and particularly where some state regulators sought to preserve the resellers' margins), the growth of facilities-based competition – and the intensity of the competition between such licensees – produced changes in the marketplace (*e.g.*, sharp declines in prices, and hence lower margins) which may have redirected the

[44] CTIA 2003 Competition Comments at 11-12. Scoreboard is now owned and operated by Andrew Corporation.

entrepreneurial interests of potential wireless resellers elsewhere. Recent trends suggest that wireless resale may have a new role: helping non-wireless carriers compete in the local exchange and interexchange markets by permitting these carriers to offer consumers a complete "bundle" of telecommunications services. In this sense, wireless resale may bring important competitive benefits, although not within the CMRS market. Just as facilities-based carriers acquired markets and consolidated over time, so too have companies like Nationwide Cellular Service, Inc. which acquired smaller resellers. In fact, Nationwide Cellular Service became the largest reseller, and ranked among the top 20 wireless companies in the U.S. in 1995, prior to being acquired by MCI Communications.[45] Although MCI's successor in interest, WorldCom, subsequently withdrew from the wireless marketplace,[46] the Commission's *Local Competition Report* indicates a relatively consistent percentage of subscribers nationwide have been served by resellers over the past four and a half years, with entry (and exit) occurring as one would predict in a competitive market.[47] Such entry is occurring in the form of Mobile Virtual Network Operators (MVNO) that offer their own "branded" version of resold service.

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45 Paul Kagan Associates' May 23, 1995 *Wireless Investor* newsletter ranked the publicly-traded Nationwide Cellular as the 17th largest wireless company in the U.S., prior to the June 1995 decision of MCI's board to approve its acquisition by MCI.

46 Recent press accounts report that MCI is poised to re-enter the wireless market.

47 Review of the *Local Competition Reports* on the FCC Industry Analysis and Technology Division's website, http://www.fcc.gov/wcb/iatd/comp.html , reveals that the percentage of subscribers served by resellers has remained fairly stable, nationwide, although dipping slightly in California after WorldCom's withdrawal from the wireless market in mid-2002, before recovering in the next reporting period.

Virgin Mobile (which now has over 1.75 million customers in the U.S.) is just one of the MVNOs who have entered the market, which currently includes Liberty Wireless (which entered the market at the same time WorldCom was exiting the wireless business and reportedly fell heir to many former WorldCom customers), and may soon include AT&T.[48] What distinguishes an MVNO from a traditional reseller has been identified as "brand appeal, distribution channels, and other affinities," including the potential ability to bundle wireless service with other non-wireless products and services, as well as the ability to provide and support value-added services.[49] MobileIN.com identified the following companies as MVNOs operating in the United States as of February 2004:

**MVNOs in the U.S.**

| | |
|---|---|
| 9278 Mobile | Locus Mobile |
| Air Voice Wireless | Mobile PCS |
| Boost Mobile | Omni Prepaid Cellular |
| Call Plus | Page Plus |
| EZ Link Plus | STI Mobile |
| GSR Mobile | TracFone |
| JusTalk | U Mobile |
| Liberty Wireless | Virgin MobileUSA |

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48 *See* "Virgin Mobile USA Passes 1.75 Million Subscriber Mark," March 15, 2004, at http://www.virginmobileusa.com/corporate/media.do#media12. *See also* John Hickey "Prepaid With a Contract; Liberty Wireless capitalizes on credit fallout with a new type of prepaid wireless offer," *Intelecard*, August 2003, at http://www.intelecard.com/features/03features.asp?A_ID=292. See Sue Marek, "Liberty Wireless Carves Prepaid Niche: Reseller targets untapped subscriber base that wants postpaid airtime rates in a prepaid package," *Wireless Week*, April 15, 2004, at 14.

49 *See* http://www.mobilein.com/what_is_a_mvno.htm. *See also* Khali Henderson, "Mobile Virtual Network Operators: America's Latest Import," *Phone Plus*, August 2001, at http://www.phoneplusmag.com/articles/181feat1.html. *See also* Scott Cleland, Rudy Baca, "Repercussions of the Cingular-AWE Deal That Increase Competition and Cost," *Precursor Group*, April 19, 2004 ("AT&T has made clear it intends to immediately reenter the wireless business as a major reseller after the deal's close").

### B. Horizontal Concentration and Vertical Integration

The Herfindahl-Hirshman Index (HHI) is a tool used by the Department of Justice and Federal Trade Commission in conducting merger analysis, measuring the changes in market concentration, and determining whether such changes raise competitive concerns that warrant further examination. The HHI does not measure "effective competition," but rather signals antitrust agencies how closely they should review a proposed merger. Attempts to apply a one-size-fits-all approach to analysis of market shares and concentration will lead to serious mistakes in an economic environment as complex as that of the CMRS industry.

Mergers with "high" HHIs routinely are approved because they pose no threat to competition. Nor does the HHI measure the competitive intensity of the market. Moreover, with respect to the second half of the question, as the Department of Justice has itself noted to the Commission, "although market shares are relevant, they do not convey the entire competitive picture."[50]

As was noted during the debate over cellular eligibility in the Commission's PCS proceeding (when the wireless market was still a duopoly): "[e]conomists call a market structure competitive when entry is easy, firms are numerous, and no firm has a large market share. . . . [yet] the performance of a market can be competitive even if its structure is not."[51] And, as has been noted elsewhere, "economic theory suggests that the

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50 Reply Comments of the Department of Justice, In the Matter of Implementation of Section 11 of the Cable Television Consumer Protection and Competition Act of 1992, CS Docket No. 98-82, at 5 n.7 (*citing* Horizontal Merger Guidelines).

51 Drs. Stanley M. Besen, Robert J. Larner & Jane Murdoch, *An Economic Analysis of Entry by Cellular Operators into Personal Communications Services*, Charles

key to increased competition is increased productive capacity."[52] In the case of the CMRS marketplace, the Commission limited facilities-based entry into the market by establishing just two licenses, the A and B block cellular licenses. The FCC subsequently expanded the market for facilities-based CMRS competition by subsequently authorizing six PCS licenses,[53] and allowing the adaptation of SMR spectrum to offer cellular-like interconnected service. The Commission's issuance of licenses for all of these service areas, and the subsequent determination to license more spectrum (in the form of the 700 MHz band, and an additional 90 MHz of spectrum ) dramatically increased the number of actual licensees in any one geographic area, improving the potential and ability for entry by new providers.

The Commission's outcome-oriented policies that lead to the allocation and licensing of cellular and PCS spectrum placed a high value on the competitive delivery of services, diversity of service options, rapid deployment of service, and wide area coverage.[54] The ends of these policies conformed with Professor Bork's identification of the popular concept of the objectives of competition: low prices, innovation, and choice.

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River Associates (November 1992) at 7-8 (footnotes omitted)(emphasis in original).

52 *See e.g.,* Robert F. Roche, "Options and Implications of U.S. Competition Policy: The Case of Wireless Telecommunications" (Ph.D. diss., George Washington University, 1997), at 239.

53 The further barriers to entry previously erected by state commissions were struck down pursuant to Congress' preemption of state entry regulation in the Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, Title VI, Section 6002(b), 107 Stat. 312 (1993).

54 *Memorandum Opinion and Order on Reconsideration, Amendment of the Commission's Rules to Establish New Personal Communications Services*, 9 FCC Rcd. 4957 (1994) at para. 4.

The wireless industry has delivered on these objectives, as the Commission itself has acknowledged.[55]

Economists are in broad agreement that real damage to consumer welfare and the competitive process can be done through poorly conceived taxes and regulations, and the CMRS industry is no exception to this general rule. In addition to the Federal mandates within its direct control, the Commission should monitor state and local regulation of CMRS and assess its effects on competition and consumers. And, as noted above, the Commission also should pay particular attention to creeping regulation of terms and conditions, as these rules can quickly become an especially inefficient form of price regulation.

CTIA urges the Commission to guard against confusing the form of its analysis of whether CMRS is a competitive industry, with the objectives of facilitating a competitive market. As the Commission admitted in the NOI: "[t]he structural and behavioral characteristics of a competitive market . . . are desirable not as ends in themselves, but rather as a means of bringing tangible benefits to consumers such as lower prices, higher quality, and greater choice of services. Such consumer outcomes are the ultimate test of effective competition."[56]

Rate centers are LEC-oriented concepts, inappropriate as a basis for analyzing the wireless industry. By the Commission's own admission, rate centers do not equate with carrier market areas or with the locus of customer usage – on either an individual or aggregate carrier basis. Indeed, such a small area basis for an analysis of the wireless

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55 NOI at para.2.

56 *Id*. at para.49.

marketplace is inconsistent with the direction the industry has been moving in for years, with the growth of wide area footprints, and national and regional calling plans.

In fact, with respect to the horizontal structure of the industry, both carriers and the Commission have promoted the development of wider service areas. In some cases, this has been pursued through the assembly of wholly-owned proximate operations, and in other cases through affiliation agreements or roaming partnerships. The wireless industry has repeatedly changed its form over the past 20 years, with smaller companies growing through affiliation, consolidation, and the acquisition of new licenses (e.g., PCS licenses). While one result of these changes has been a reduction in the number of active wireless licensees, this development has not produced higher prices for consumers, fewer service options, or less innovation. To the contrary, the changes experienced in the CMRS industry have enabled carriers to offer the variety of plans by which the range of Tier I through Tier III companies can compete with each other. Large and small CMRS providers compete by offering multiple service plans that offer consumers the choice of "long distance" calling and the benefits of wide area footprints.

### C. Consolidation and Exit

As the Commission concedes, "[c]onsolidation . . . does not always result in a negative impact on consumers. Consolidation in the mobile telecommunications market may enable carriers to achieve certain economies of scale and increased efficiencies compared to smaller operators. These benefits could result in lower prices and new and innovative services for consumers."[57] The U.S. wireless industry has evolved over the past 20 years with small, regional and national carriers assembling markets or additional

[57] *Id*. at n.45.

in-market assets through both mergers and the acquisition of new spectrum licenses. As these developments have occurred, the number of active providers in any one market has increased, the total number of subscribers has increased, and the volume of service consumed has likewise grown – both in terms of overall usage, and minutes of use per subscriber.

Examples of the companies that have taken their current form as a result of mergers, divestitures, or the acquisition of new spectrum licenses include:

- ALLTEL, which grew through the acquisition of SouthWestCo (a separate subsidiary which Verizon Wireless had to divest, in order to retain the AirTouch markets acquired in the Southwestern United States), 360 Communications (which was composed of the cellular operations which had been divested by Sprint in order for Sprint to pursue its nationwide PCS licenses), Aliant Communications, CenturyTel, and XL Cellular;
- AT&T Wireless, which consolidated the assets of McCaw Cellular (which itself was formed from multiple earlier cellular license holders, such as LIN Broadcasting), and a number of markets acquired in trades with companies such as Dobson Communications, and Rural Cellular Corporation, U.S. Cellular, among others;
- Cingular Wireless, which was formed by BellSouth and SBC, and consolidated the assets of BellSouth Cellular, BellSouth Mobility DCS (BellSouth's original PCS entity), Southwestern Bell's Cellular One properties, PacTel, Ameritech, GTE Wireless (in part), Radiofone, SNET Mobile, and Cellular Communications of Puerto Rico;
- Nextel, which grew through the merger of the assets of FleetCall, OneComm, DialCall, Pittencrief, Geotek (which itself exited the market following bankruptcy), and other SMR operators, as well as through winning bids for SMR spectrum;
- Rural Cellular Corporation, which grew through the acquisition of Atlantic Cellular, Blue Mountain Cellular, Glacial Lakes Cellular, InterCel, and other companies, as well as through the acquisition of PCS licenses;
- Verizon Wireless, which grew through the consolidation of Bell Atlantic Mobile Systems, NYNEX Mobile, AirTouch (which was itself formed from the assets of U S WEST NewVector and CCI / NewPar, GTE Wireless, and other companies, as well as by winning bids for PCS licenses;
- Western Wireless, which was originally formed from the merger of General Cellular Inc. and Pacific Northwest Cellular, and which won at auction and then divested PCS licenses which in turn subsequently acquired or merged with other PCS license holders (including Aerial Communications, Omnipoint, and Powertel) to become T-Mobile USA; and

- a host of other smaller companies that grew by assembling cellular or PCS licenses, sometimes by adding PCS licenses to their existing cellular footprints.

Although the Commission's NOI observes that "there are a growing number of service providers that offer data-only services"[58] it should be pointed out that some of the companies making these offerings have foundered, in the view of some analysts because such a single focus limited the revenue potential of the providers.[59] In fact, the exit or the restructuring which has gone on among such single-focused companies (whether offering CMRS or non-CMRS fixed and mobile wireless data services) may be the best evidence of the reality of the competitive market forces at work in the wireless industry. The consequences experienced by these single-product providers are not peculiar to their use of wireless technology – other companies using the same technology platforms, but offering additional services, such as voice, are viewed as delivering value to their customers and their offerings are expected to continue to flourish.[60] Indeed, some carriers that originally offered local-only service plans with no roaming and no long distance calling have revised their offerings to include new features and options responsive to consumer interest.[61]

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58 *Id*. at para. 39.

59 Brad Smith, "Early Data Models Drain Finances," *Wireless Week*, April 15, 2004, at 16 *citing* John Atkin, RBC Capital analyst. Examples included Metricom and Aerie Networks, Monet Mobile Networks, Teligent, Winstar and XO Communications, as well as paging companies Metrocall, Arch Wireless and Weblink Wireless, among others.

60 *Id*. *See also* Frank J. Governali, *et al.,* "Adopting More Pos Outlook on Wireless Data; VZ, PCS Best Positioned; Twkng Ests," Goldman Sachs, April 15, 2004.

61 For example, Leap Wireless' annual reports indicate their original vision of the Cricket service was as "a simple and affordable wireless service plan" that "allows customers to make all the local calls they want for one low, flat rate."

Exit from the CMRS industry – or bankruptcy or other reorganization – has occurred over time, with the result that the spectrum assets of some companies have been returned to the Commission for re-auction,[62] while other companies have acquired control of exiting companies' assets and maintained or expanded their operations.[63]

### D. Barriers to Entry

#### 1. Access to Spectrum

Access to spectrum does not appear to be a barrier to entry into the CMRS industry. As the Commission knows, there have been a number of spectrum auctions in which not all of the available spectrum licenses have been purchased.[64] Further, a

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Leap Wireless 1999 Annual Report at pages 4, 16. Subsequently, Leap indicated the addition of the option of buying long distance minutes. *See* Leap Wireless 10-K report for FY 2001, filed March 28, 2002, at page 3. Leap's Cricket offerings now include an unlimited long distance calling and text-messaging plan among customers' options. *See* "Leap Announces the Launch of Cricket Unlimited™ - The First-Ever Complete Package of Unlimited Anytime Local, U.S. Long Distance and Text Messaging Wireless Services," press release March 16, 2004, at http://www.leapwireless.com/dindex.html.

62 *See* Wireless Telecommunications Bureau Announces Broadband Personal Communications Services C Block Elections, *Public Notice*, DA 98-1168 (released June 16, 1998) (indicating return of 31 C block PCS licenses by Pocket Communications).

63 *See e.g.*, Nextel's acquisition of spectrum from Geotek Communications, Inc., described in the Fifth Annual CMRS Competition Report, 15 FCC Rcd. 17660 (2000) at 17733-74. *See also* the Verizon Wireless acquisition of Price Wireless, described in the Sixth Annual CMRS Competition Report, 16 FCC Rcd 13350 (2001) at 13364.

64 For example, in Auction No. 41, 317 of 365 Narrowband PCS licenses were the subject of bids. *See* "Narrowband PCS Spectrum Auction Closes," Public Notice DA 01-2429, released October 18, 2001, at http://wireless.fcc.gov/auctions/41/releases/da012429.pdf. *See also* "Lower and Upper Paging Bands Auction Closes," Public Notice DA 03-1836, released May 30, 2003, at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-03-

number of spectrum authorizations have been returned to the FCC and then re-auctioned (more than once) in order to ensure that they not remain unlicensed.[65] The Commission has also adopted several mechanisms such as flexible service rules, spectrum leasing and secondary markets to facilitate access to spectrum. And, as noted above, entities have vigorously used acquisitions of existing license-holders as a means of gaining access to spectrum. The Commission has also increased the amount of spectrum which is currently licensed for CMRS services, and is preparing to make available another 90 MHz, thus substantially increasing the supply of CMRS spectrum from that previously available.

### 2. Market Conditions That May Present Barriers to Entry

While the NOI states that "cellular licensees . . . have benefited from a first-mover advantage," the extent to which this has constituted a hypothetical barrier to entry is questionable, let alone an actual barrier. The empirical, publicly available information demonstrates that the so-called "first mover advantage" of cellular licensees is not a barrier to entry. In the last seven years, new wireless providers have succeeded in entering the market, and building out competing systems nationwide (an ongoing process,

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1836A1.pdf (announcing 2,832 of 10,202 licenses had been won by bidders in Auction 48). *See also* " C, D, E, and F Block Broadband PCS License Auction Closes," Public Notice DA 99-757 (announcing winning bidders for 302 of 347 broadband PCS licenses in Auction No. 22) at http://wireless.fcc.gov/auctions/22/releases/da990757.pdf.

65 Thus, licenses returned subsequent to the withdrawal or surrender of C Block PCS licenses won in Auction No. 5 were re-auctioned in Auction No. 10. The sequence of Auctions No. 11 (D, E and F block licenses), No. 22 (C, D, E and F block licenses), and No. 35 (C and F block licenses) and the recent announcement of the settlement agreement between the FCC and Nextwave indicate the Commission's on-going commitment to ensuring spectrum is available for licensing and usage. *See* "FCC Announces Nextwave Settlement Agreement," FCC News Release, April 20, 2004.

to be sure). Based on a review of the publicly-available year-end 2003 subscriber figures for publicly-traded wireless companies, 24 pure non-cellular providers alone grew to serve 34 percent of all wireless customers by year-end 2003. Moreover, last year, T-Mobile and Nextel were two of the top three carriers in garnering the most new customer adds, and neither company began its operations as a cellular incumbent.

The *Eighth Competition Report* clearly notes what CTIA's own research has indicated: that entry has occurred nationwide, with the result that as of the date of the last report, "95 percent of the total U.S. population live in counties with access to three or more different operators . . . . 83 percent of the U.S. population live in counties with five or more mobile telephone operators competing to offer service."[66] By CTIA's calculations, 98 percent of the U.S. population now lives in markets served by three or more operators, 93 percent in markets served by four or more operators, 83 percent in markets served by five or more operators, and 66 percent in markets served by six or more operators.[67]

## III. Carrier Conduct in the Mobile Telecommunications Market

### A. Price Rivalry

There are multiple sources for pricing information regarding the wireless industry. These range from the sources identified under Mobile Telecommunications Market Performance, *infra*, to weekly reports by companies such as Legg Mason, periodic reports by Merrill Lynch (store visits and pricing reports) and Goldman Sachs' recent

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66 *Eighth Competition Report* 18 FCC Rcd. at 14794 para.18.

67 *See* CTIA, *Wireless Industry Indices: Semi-Annual Data Survey Results* (results through December 2003)(to be published May 2004).

wireless data-focused reports.[68] Most ubiquitous are carriers' own web sites and the consumer-oriented sites on the Internet. With such easy access to up to the minute rate information, the Commission need not impose any new data collection mandates on wireless carriers. Indeed, the timeliness and granularity of price information that is available on the Internet to Commission staff (and the public) should be superior in every respect to imposing a new data collection and reporting mandate on carriers.

Regular comparisons of price plans and services appear in the popular press, published by Consumers Union, major national and metropolitan newspapers, etc. Consumer-oriented sites also make available price information, indicating the range of options and prices, as previously noted, such as www.myrateplan.com. Academic research into pricing has also been on-going.[69]

With respect to the differential subscription to service plans by various demographic groups, a Massachusetts research company named Compete performs research it describes as "segment development."[70] Scarborough Research, on the other

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68 *See e.g.,* Linda J. Mutschler, *et al*., "US Wireless Pricing: More Holiday Promotions," Merrill Lynch, November 12, 2003; *see also* references to competitive product offerings in Linda Mutschler, *et al*., US Wireless Services: Slower Than Expected Start?" Merrill Lynch, December 1, 2003, at 3 (replacement phones), and "Wireless data prospects brightening," (comparing 2003 and 2004 pricing).

69 *See e.g.,* Eugenio J. Miravete, "Are all those Calling Plans Really Necessary? The Limited Gains from Complex Tariffs," Department of Economics, U. of Pennsylvania (January 21, 2004).

70 *See* http://www.compete.com/products_services/wireless.xtp.

hand, purports to report how bills differ among demographic groups, although this does not equate to subscription to differing plans.[71]

### B. Non-Price Rivalry

The Commission seeks information on non-price rivalry, including competition on the basis of service quality, as well as such factors as coverage, and ancillary services.[72] Much of this data is the subject of analysis by both wireless industry analysts and financial analysts, who have examined the role of service quality and coverage and the prospective impact of the bundling of services for both wireless and wireline carriers on customer retention.[73] Innovation is a key indicia of non-price competition, and CMRS carriers have a great innovation story.

The role of brand appeal has also been the subject of some analysis. Among the elements which have been analyzed are advertising and marketing, albeit with variable focus (some analysts being more interested in the impact of wireless spending on advertising companies' cash flow). For example, Morgan Stanley recently published a "Broadcasting and Advertising" overview report focusing on the wireless industry's recent (and mostly national) media advertising spending.[74] *Adweek* magazine also

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71 *See* "Hispanics Cellular Bills are 10% Higher Than the National Average," February 18, 2004, Scarborough Press Release at http://www.scarborough.com/scarb2002/press/pr_hispaniccellular.htm.

72 NOI at para. 33.

73 *See* In-Stat/MDR research at http://www.instat.com/descriptions/topic-wireless.asp

74 Michael Russell, Simon Flannery, *et al*., "Broadcasting & Advertising: Industry Overview, Wireless Ad Spend Disappoints Almost Everyone," Morgan Stanley, March 31, 2004, at 2. *See also* "Wireless 411: Version 12.0," at 5-6, 67-72.

provides data on advertising spending by type (*e.g.*, newspaper, TV, radio and other media.) Moreover, it is certainly apparent to any consumers that carriers are competing on the basis of perceived call quality ("Can you hear me now?), as well as other impressionistic benefits.

## IV. Consumer Ability to Switch Service Providers

The Commission's question as to whether carrier-reported churn rates are "reliable" "estimates" fails to take note of an observation made in Commission's own *Eighth Competition Report*, which said that "we . . . emphasize that some of the sources upon which we rely, particularly SEC filings, are required by law to be accurate, and are scrutinized by independent third parties."[75] Churn rates, in particular, are both reported by publicly-traded carriers, and are the subject of close scrutiny by a host of independent analysts.

While there may be some variations within the calculations made by carriers – such as whether an account suspended during a customer's vacation is considered "active" – the common form of the calculation is: total disconnects for a period divided by average subscribership for the period. Such periods may be monthly, quarterly, semi-annual, or annual in nature. The quarterly and annual reports of publicly-traded companies have traditionally included this data, as have reports prepared by financial analysts covering those companies and the industry as a whole.[76] And the attention

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75 *Eighth Competition Report* at para. 9.

76 *See e.g.,* David Janazzo, *et al.,* "The Next Generation VIII: The Final Frontier?" Merrill Lynch (March 15, 2004), *and* Colette Fleming, *et al*., "Wireless 411: Version 12.0" UBS, 5, 32-33. *See also* Michel Morin, "Global Wireless Matrix 4Q03: Quarterly Update On Global Wireless Industry Metrics," Merrill Lynch,

provided to this metric has been close, particularly given the advent of local number portability, and its potential impact on carriers as consumers weigh their options. The potential impact of portability on churn was initially considered to be significant, but some analysts have found that the impact has thus far been less than expected.[77]

As previously noted, some analysts have concluded that while there has been some impact from LNP, initially it has been "less than we had expected with regard to churn."[78] However, some increase is expected in churn over the course of 2004, as the process becomes smoother and contracts expire.[79] In-Stat reportedly found that "Respondents who are considering a switch say better pricing options are fueling their decision."[80] Yet other analysts have observed that churn stabilized or declined in the last half of 2003, as carriers implemented programs intended to encourage customers to

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March 19, 2004, at Tables 9 and 67, displaying monthly churn across 46 countries, and in the United States from 1999 through year-end 2003.

77 *See e.g.,* The Next Generation VIII, at 3-4. *See also* Frank J. Governali, *et al*., "WLNP: short-term pain for long-term gain," Goldman Sachs, July 8, 2003, at 2 (expecting an increase in churn of 15 million customers among the top six carriers).

78 The Next Generation VIII, at 3. *See also* "Wireless 411: Version 12.0," at 4-5.

79 *See e.g.,* Susan Rush, "In-Stat: Churn Set to Increase," News@2Direct, April 13, 2004. *See also* "Wireless 411: Version 12.0," at 5.

80 *Id.*

remain with their existing carriers.[81] At the same time, in the post-number portability environment, subscriber additions are reported to be better than expected.[82]

## V. Mobile Telecommunications Market Performance

### A. Pricing Levels and Trends

For antitrust reasons, CTIA does not track price information. The Commission is correct in identifying the Bureau of Labor Statistics' Cellular Price Index as one source for measurement of the trend in wireless pricing. Furthermore, as CTIA indicated to the Commission last year:

> financial analysts like Legg Mason and Merrill Lynch regularly publish data on pricing plans (*e.g.,* promotional offerings), and a number of sources exist for data on pricing – including both the comparison websites mentioned earlier and intermediary companies like Amazon.com, MSN.com, and Yahoo.com which also market wireless service, and provide rate and plan information. The periodic reports by financial analysts also focus on new and promotional offerings and pricing for new service options such as various wireless data applications and speeds. Thus, for example, Linda Mutschler and her colleagues at Merrill Lynch have released a series of reports tracking promotional offers, pricing trends, and new service offerings.[83] In fact, the reports by these and other

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81 *See e.g.,* Roger Enter*, et al.,*"Wireless Churn Was Stable During 4Q03 Despite Wireless Number Portability," The Yankee Group, March 2004. *See also* Linda Mutschler, *et al.,* "US Wireless Services: Slower Than Expected Start?" Merrill Lynch, December 1, 2003, at 3 (describing different retention programs and special offers "mitigating the potential churn impact").

82 *See also* David Janazzo, *et al*., "US Wireless Store Visits: Off to a Good Start," Merrill Lynch, April 6, 2004, at 1.

83 *See e.g.,* "Wireless Pricing: A Look at 2001 Holiday Promotions," Merrill Lynch, December 18, 2001; "Wireless Pricing: A Look at Recent Pricing Trends – and Potential Implications," Merrill Lynch, April 29, 2002; "Wireless Pricing: What Are They Thinking?!" Merrill Lynch, August 1, 2002; "Wireless Pricing: PCS Takes Action," Merrill Lynch, August 14, 2002; "Wireless Pricing: Cingular Starts On-Net Roaming National Plans," Merrill Lynch, September 5, 2002; "Wireless Pricing: Sprint Introduces New Plans," Merrill Lynch, October 18,

> analysts identify the actions carriers take in the form of national carriers introducing new local calling plans, the competitive responses which occur, and speculate as to the implications of such plan changes, including the prospects for wireline substitution.[84]

More recent publications by Merrill Lynch, Legg Mason, and EconOne provide updated trend data. Legg Mason, for example, distributes weekly pricing reports, just as Merrill Lynch continues to conduct store visits and review special pricing plans.[85]

### 1. Pricing in Rural Areas

The *Eighth Competition Report* duly noted that:

> [W]hile it appears that, on average, a smaller number of operators are serving rural areas than urban areas, this difference does not necessarily indicate that effective CMRS competition does not exist in rural areas. On the contrary . . . statements presented by public forum participants and NOI commenters provide evidence that, despite the differing structure of rural markets, effective CRMS competition does exist in rural areas.[86]

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2002; "Wireless Pricing: Nextel Introduces New Plans," Merrill Lynch, November 8, 2002; "Wireless Store Visits: Less Seasonality – But in Line Overall," Merrill Lynch, January 2, 2003; and "Wireless Services: US Wireless 4Q 02 Preview," Merrill Lynch, January 21, 2003.

84 CTIA 2003 Competition Comments at 24.

85 *See e.g.,* Linda Mutschler, *et al.*, "US Wireless Pricing: More Holiday Promotions," Merrill Lynch, November 12, 2003 (noting changes to Sprint PCS family plans and introduction of local shared service plans, and Nextel's alteration of some plans to include free long distance and unlimited off-peak minutes). *See also* David Janazzo, *et al*., "US Wireless Store Visits: Off to a Good Start," Merrill Lynch, April 6, 2004, at 3-4 (noting introduction of new pricing plans and promotions at five carriers, popularity of family plans "across all carriers and distribution channels" and demand for color and camera phones). *See also* "Wireless data prospects brightening," Goldman Sachs, at 31-35 re non-voice plan pricing.

86 *Eighth Competition Report,* 18 FCC Rcd. 14783 at para.13.

Moreover, the *Report* indicated that data "showed that the average price of mobile telephone service in rural areas appears to be very similar to the average price in urban areas,"[87] suggesting no difference in results between urban and rural areas.[88]

**2. Roaming**

With respect to the Commission's request for data on the availability of roaming for wireless customers, CTIA has tracked overall roaming usage via its semi-annual survey for over a decade. In spite of the growth of "no roaming fee" plans, and wide calling areas, (which effectively has converted "roaming" from being the equivalent of "out of market" usage, as it was when markets were operated on a more stand-alone basis, to a form of inter-carrier settlement), and the decline in reported roaming revenues, the volume of reported "roaming" calls and minutes have continued to grow. Moreover, as digital networks have been deployed across the country, the capabilities supported by those networks in rural areas have expanded to conform with those supported in urban areas. Carriers in rural areas have deployed multiple air interfaces to serve all roaming customers.

**3. Average Revenue per Unit**

CTIA's semi-annual survey has tracked the average local monthly bill for the wireless industry on an aggregate basis since 1987. Over time, the average bill declined, reaching a low of $39.43 in December 1998. Subsequently, the average local monthly

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87 *Id*. *citing* Econ One analysis.

88 *See also* Section III.A., *supra.*

bill began climbing again, reaching $49.91 at year-end 2003. But, while the average local monthly bill increased 26.6 percent from 1998 to 2003, the average minutes used by customers increased 266.4 percent over that same period. Moreover, customer revenue now also reflects the consumption of data services, music downloads, and other features not previously available.

### B. Quantity of Services Purchased

#### 1. Subscriber Growth

With respect to the sources the Commission should use to estimate the number of active wireless subscribers in the United States, CTIA continues to believe that the Commission should use multiple sources, including its own NRUF data, the CTIA semi-annual wireless industry survey, and such third-party reports as the Commission deems appropriate. As CTIA indicated last year, use of a single data-source may result in either under- or over-counting active subscribership, either as a result of reporting error or delay, or as a result of the range or focus of the analysis. For example, financial analysts' primary focus is generally on the larger, publicly-traded companies. Nonetheless, such analysts sometimes seek to estimate the total universe of wireless subscribers, in order to provide context for their analysis.[89] Indeed, no single data source is perfect. However, taken collectively, a fairly cohesive picture emerges, much like the tiles in a mosaic combine to form an image. And, in comparing the U.S. with other countries, the Commission should be aware that, as Roger Entner of the Yankee Group recently

[89] *See e.g.*, David Janazzo, *et al*., "The US Wireless Matrix 4Q03," Merrill Lynch, March 15, 2004, at Table 2, reporting subscribership for 23 carriers, and estimating the total universe of subscribers at year-end 2003. *See also* CTIA 2003 Competition Comments at 17.

observed, penetration in some European countries is overstated as a result of a prolonged inclusion of inactive prepaid accounts in some carriers' subscriber counts.[90]

As CTIA noted in its comments filed last year, J.D. Power and Associates publishes reports such as their *2002 Wireless Industry Trend & Analysis Report* that reportedly provide national and market-level insights into:

- Household Wireless Penetration (National/Market/PCS vs. Cellular)
- Market Share by Household and Phone (subscriber)
- Expenditure and Usage (ARPUs/MOUs)
- Satisfaction Dynamics
- Past/Future Churn Intent
- Loyalty/Switching Behavior
- Customer Service Issues (Problem/Resolution)
- Wireless Data/Internet Behavior
- PCS vs. Cellular Landscape
- HH Ownership Characteristics
- Demographic Profiling [91]

**2. Sub-National Penetration Rates**

To the extent that the Commission wishes to calculate sub-national penetration levels, even though it is not perfect, the Form 477 provides a conservative baseline based on state-level data. Some firms, such as Scarborough Research, have also calculated penetration around other boundaries – by market, and on a household basis.[92]

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90 *See* Roger Entner, "A Second Look At Some Perpetuated Myths," *Wireless Week*, April 1, 2004, at 45.

91 *See* http://www.jdpa.com/businessservices/telecom/wireless_report/index.asp.

92 *See* http://www.scarborough.com/scarb2002/press/pr_cell.htm.

### 3. Minutes of Use

Minutes of use or MOUs are certainly a measure of consumed output, and thus are a measure of telecommunications service demand. CTIA's tracking of billable MOUs is on an aggregate basis, and not by carrier or market or geographic region.[93] In 2003, total reported wireless MOUs amounted to 830 billion for the year, compared with 620 billion in 2002.[94] Publicly-traded carriers, and financial analysts, periodically publish carrier-specific figures for the average MOUs consumed by those carriers' customers, but such analysis is carrier-specific, and neither market-specific nor demographic group-specific.

## C. Wireless – Wireline Competition

Reports on landline substitution – as one measure of wireless-wireline competition – have looked at a variety of metrics or definitions, from partial to explicit and total substitution ("cutting the cord"), to shifts in usage ranging from surveys of the consumers' characterization of their usage (such as considering their wireless phone to be their "primary phone"), to estimating the percentage of total telecommunications minutes of use which have shifted from wireline to wireless networks, to trying to divine the percentage of access line losses attributable to wireless versus DSL or UNE-P or cable modem substitution. Companies such as IDC and Merrill Lynch have analyzed access

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93 As noted in last year's filing, CTIA's survey has gathered aggregate MOU data since June 1991, and now constitutes a time series from 1991 through year-end 2003.

94 CTIA Semi-annual Wireless Survey results, to be published in CTIA's forthcoming *Wireless Industry Indices* report.

line and minute of use trends.[95] The Commission itself acknowledged the existence of intermodal competition in its Order on intermodal number portability wherein it noted such competition played a role in its determinations to require wireless number portability; a prospect which would appear to be jeopardized by wholesale waiver of the portability requirement for LECs.[96]

Two years ago, a Gallup / USA Today poll found that 18 percent of cell phone users considered their wireless phone to be their primary phone, while one conducted two months ago found that 14 percent of consumers now use their wireless phone as their primary phone, and that "among those consumers still using a landline as their primary phone, 26.4 percent would consider replacing it with a wireless phone."[97] Thus, while most parties agree there is wireline-wireless competition, the level of such competition remains quite minimal.

## VI. International Comparisons of Mobile Telecommunications

Comparative data on wireless services provided in international markets is available from a number of sources, albeit in differing forms and with different issue

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95 *See e.g.,* "The Next Generation VIII," Merrill Lynch, at 39-42, examining access line losses, and comparative wireless-wireline voice minute trends. *See also* http://www.idc.com/getdoc.jsp?containerId=28018 re IDC's report on "Wireless Displacement of Wireline Access Lines Forecast and Analysis, 2002-2006."

96 *See Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, In the Matter of Telephone Number Portability, CTIA Petitions for Declaratory Ruling on Wireline-Wireless Porting Issues,* CC Docket No. 95-116, FCC 03-284, at para. 9 (released November 10, 2003).

97 *See Michelle Kessler,* "18% see cell phones as their main phones," *USA Today,* January 31, 2002; Eric Gwinn, "Getting wired in to go wireless," *Chicago Tribune*, March 24, 2004, *citing* In-Stat/ MDR wireless research.

dates. And this data should be interpreted with caution, given the multiplicity of factors that can skew facile comparisons of disparate markets.

Sources include the International Telecommunications Union (ITU), which publishes on its website statistics for wireless subscribership on a country-by-country basis.[98] Typically, this data is for the year-end, although the data is not available for all countries at the same time, and the ITU revises its report as updated statistics become available. The statistics which they track and publish include the number of "cellular mobile" subscribers for the period, comparable subscribers for a prior period (*e.g.*, the 2002 report included both 2002 and 1997 subscribers), the compound annual growth rate, the number of cellular subscribers per 100 inhabitants, the percentage of cellular subscribers which are digital, and the percentage which cellular constitutes of total telecommunications subscribers.[99] The ITU also publishes similar data on the wireline and Internet markets.

The Organisation for Economic Cooperation and Development (OECD) also publishes data on wireless (and telecommunications, more broadly) on a periodic basis, such as the *OECD Communications Outlook, 2003,* which provides an overview of OECD countries' recent trends in telecommunications, including "performance indicators, such as revenue, investment, employment and prices for service throughout the OECD area."[100]

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98 *See* http://www.itu.int/ITU-D/ict/statistics/index.html.

99 *See* http://www.itu.int/ITU-D/ict/statistics/at_glance/cellular02.pdf

100 *See* http://www.oecd.org/document/32/0,2340,en_2825_495656_2514080_1_1_1_1,00.html

Analytic firms, such as the Informa Telecoms Group, publish a variety of reports and newsletters which track wireless telecommunications trends internationally. For example, one of the Informa Group's affiliates, Baskerville Reports, publishes the "Global Mobile" newsletter, which provides more frequent updates on wireless subscribership by country than does the ITU (*e.g.,* by quarter), as well as articles on specific developments. Baskerville also publishes reports on specific sectors, such as their current report on *Global Mobile Prepaid Strategies and Forecast – 2004 Edition.*

Other sources for international data include those prepared by financial firms such as Merrill Lynch. As noted in CTIA's response to last year's competition NOI, Merrill Lynch's global "Wireless Matrix" report itself states that it:

> "compiles quarterly historical data on over 175 mobile operators, both public and private, from 45 countries globally, representing an estimated 96.6% of the global universe."[101] The report includes comparative data on population, the GDP/Capita, subscribership, penetration, year-over-year growth, monthly churn, ARPU, revenue per minute, data as a percentage of revenues, EBITDA margins, the number of major competitors, subscribers by technology, and whether Calling Party Pays applies for these countries. For such factors as subscribership, monthly churn, penetration, Average revenue per user (ARPU), minutes of use (MOUs), revenue per minutes, EBITDA margins, the percentage of revenues attributable to data services, etc., this Merrill Lynch report provides a data series effectively beginning with the first quarter of 1999.[102]

More recent reports providing this data include Merrill Lynch's Global Wireless Matrix – 4Q03, published March 19, 2004.

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101 Linda Mutschler, *et al*., "Wireless Matrix – 3Q02: Quarterly Update on Global Wireless Industry Metrics," Merrill Lynch, December 10, 2002, at 1.

102 CTIA Comments on 2003 Competition NOI, at 8-9.

## CONCLUSION

With multiple service providers available to effectively all Americans, the on-going investment in and build-out of wireless systems, the introduction of new service options, multiple pricing plans, declining prices, and the concomitant increase in minutes used by consumers, the wireless industry – and the wireless marketplace – is quite evidently delivering effective competition, and competitive benefits, to consumers.

CTIA hopes that the information provided in these comments assists the Commission in preparing the *Ninth Annual CMRS Competition Report*.

Respectfully submitted,

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